APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,569	12/21/2004	Carl L. Christensen	PU020298	6833

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EXAMINER
MALEK, LEILA

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 March 2009</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-11</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-11</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>30 March 2009</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 03/30/2009 have been fully considered but they are

not persuasive.

Applicant's Argument: Applicants argue that Adams does not mention or even

suggest determining a separation interval, as claimed.

Examiner's Response: Examiner respectfully disagrees. Examiner asserts that Adams

clearly discloses generating a clock signal based on the amount of time that passed

between preamble signals (see page 4, lines 26 and 27). This time has been in

interpreted as the separation interval.

Applicant's Argument: Applicant argues that neither Scott nor Adams discloses a

decoder circuit extracting time information from said stream of serialized AES digital

audio data during decoding.

Examiner's Response: Examiner asserts that Scott discloses an apparatus

comprising: a decoder circuit (see blocks 707 and 708) coupled to receive a stream of

serialized (see column 4, lines 27-28) digital audio (i.e. the telephony signal) data (see

column 15, lines 24-36), the decoder circuit (combination of blocks 707 and 708)

extracting time information from the stream of digital audio data during the decoding

thereof.

Drawings

2.   The drawings were received on 03/30/2009. These drawings are accepted.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 4, 5, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claims 4 and 8, limitation "fast clock pulse count" is indefinite. Because fast is a relative term and it is not clear how fast the clock pulse count is. Claims 5 and 9 are rejected because they depend on claims 4 and 8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (W098/16040) (see the IDS), in view of Lydon et al. (hereafter, referred as Lydon) (US 6,757,302).

As to claim 1, Adams discloses a method for extracting selected time information from a stream of serialized digital audio data (see page 3, lines 19-31 and page 4, lines 26-27), comprising: detecting a first transition indicative of a first preamble of the stream of serialized AES digital audio data (see page 3, lines 29-31, where Adams describes that each preamble <u>begins with a violation of the biphase-mark encoding rule</u> that each

cell is bordered by a transition, and also see page 4, where Adams discloses that the violations have been detected (detection of violations have been interpreted as detection of a first and second preamble)); detecting a second transition indicative of a subsequent preamble of the serialized AES digital audio data; and determining a time separating the first and second transitions (see page 4, lines 26-27). Adam discloses all the subject matters claimed in claim 1, except that the extracting time information (i.e. the steps of detecting and determining) has been performed by a broadcast router. Lydon, in the same field of endeavor, discloses a router, wherein each input of the router is connected to an input processor 14 (see column 1, last paragraph and column 4, lines 29-35). Lydon further discloses that each input processor includes an AES3 receiver 18, which is of conventional form and detects the code violation and locks to the biphase data stream, decodes the biphase mark data to unframed NRZ form, generates output clocks for control purposes and generates overhead bits. Lydon further discloses that the router is a broadcast router (see column 1, third paragraph). It would have been obvious to one of ordinary skill in the art at the time of invention to use the teachings of Adams in a broadcast router to take advantage of a self-clocking technique (see Adams pages 2-5).

As to claim 2, Adams discloses that the determined time information is suitable for use in decoding the stream of serialized AES digital audio data (see page 1, lines 12-13).

As to claim 3, Adams discloses transferring the determined time

information to a decoding logic circuit for use in decoding the stream of

serialized AES digital audio data (see page 1, lines 12-13).

As to claim 4, in view of indefiniteness of limitation "fast clock pulse count", no

patentable weight has been given to "fast". Adams, on page 11, lines 26-28, discloses

that the time information is determined in the form of a clock pulse count separating the

first and second transitions, wherein the clock pulse count is a count of clock pulses. It

would have been obvious to one of ordinary skill in the art at the time of invention to

modify Adams' background of invention as suggested in Adams' invention disclosure to

allow the system to adjust the timing of the clock if necessary (see page 11, lines 28-

30).

5.   Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Adams and Lydon, further in view of Lyle et al. (hereafter, referred as Lyle) (US

7,295,578).

As to claim 6, Adams and Lydon do not disclose that the determined time

information is also suitable for use in encoding the stream. Lyle, in the same field of

endeavor, discloses a communication system comprising a transmitter and a receiver

(see Fig. 21), wherein a communication link between the transmitter and the receiver

feeds back an audio clock signal generated at the receiver (see column 25, lines 56-57)

to an encoder of the transmitter (see Fig. 29). It would have been obvious to one of

ordinary skill in the art at the time of invention to modify Adams and Lydon in view of

Lyle to send the clock used for decoding the data to the transmitter to synchronize the

clocks used for encoding and decoding.

As to claim 7, Lyle discloses transferring the determined time information to an encoding logic circuit for use in encoding the stream of audio data (see Figs. 21 and 29 and column 25, lines 56-57). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Adams and Lydon in view of Lyle to send the clock used for decoding the data to the transmitter to synchronize the clocks used for encoding and decoding.

As to claim 8, in view of indefiniteness of limitation "fast clock pulse count" no patentable weight has been given to "fast". Adams, on page 11, lines 26-28, discloses that the time information is determined in the form of a clock pulse count separating the first and second transitions. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Adam's background of invention as suggested by Adams to allow the system to adjust the timing of the clock if necessary (see page 11, lines 28-30).

6.   Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. (hereafter, referred as Scott) (US 6,654,409), in view of Adams.

As to claim 10, Scott discloses an apparatus comprising: a decoder circuit (see blocks 707 and 708) coupled to receive a stream of serialized (see column 4, lines 27-28) digital audio (i.e. the telephony signal) data (see column 15, lines 24-36), the decoder circuit (combination of blocks 707 and 708) extracting time information from the stream of digital audio data during the decoding thereof; and a target component (see block 712) coupled to the decoder circuit, the target component receiving the extracted time information from the stream of serialized digital audio data; wherein the target

component utilizes the extracted time information while executing at least one function

(i.e. encoding) thereof (see column 15, lines 55-56). Scott discloses all the subject

matters claimed in claim 10, except that the signal has been encoded according to AES

standard. Scott also does not disclose that the time information is based on determining

a time separating a first transition, indicative of a first preamble of said stream of

serialized AES digital audio data, and a second transition, indicative of a second

preamble of said stream of serialized AES digital audio data. However, using AES

standard as an encoding standard for digital audio signals is extremely well known in

the art (as evidence by Adams page 1, lines 17-27) and therefore it would have been

obvious to one of ordinary skill in the art at the time of invention to use AES standard in

the system disclosed by Scott to facilitate data transmission between communication

devices. Regarding to the second set of limitations missing from Scott, Adams further

discloses an apparatus for extracting selected time information from a stream of

serialized digital audio data (see page 3, lines 19-31 and page 4, lines 26-27) by

detecting a first transition indicative of a first preamble of the stream of serialized AES

digital audio data (see page 3, lines 29-31, where Adams describes that each preamble

begins with a violation of the biphase-mark encoding rule that each cell is bordered by a

transition, and also see page 4, where Adams discloses that the violations have been

detected (detection of violations have been interpreted as detection of a first and

second preamble)); detecting a second transition indicative of a subsequent preamble

of the serialized AES digital audio data; and determining a time separating the first and

second transitions (see page 4, lines 26-27). It would have been obvious to one of

ordinary skill in the art at the time of invention to modify Scott as suggested by Adams

to take advantage of a self-clocking technique (see Adams page 2, lines 13-19).

As to claim 11, Scott further discloses that the extracted time information is also

utilized, by the decoder circuit, to decode the received stream of serialized digital audio

data (see column 15, lines 30-32).

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LEILA MALEK whose telephone number is (571)272-

8731. The examiner can normally be reached on 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                                  Leila Malek
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/L. M./
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